The transcendental metamorphosis hypothesis: a possible escape from determinism

Abstract

We are looking here at the transcendental metamorphosis hypothesis, which states that it is possible to jump from hard determinism to free will, and what could lead to its realization. We look at solutions through external causes, like if we are in a simulation, internal causes specific to a type or types of determinism, including cultural, environmental, social, genetic and physical, and spontaneous happenings or through changes that impact causation rather than the deterministic structure. Those solutions cumulatively show that it is plausible, though costly, often a choice between humanity and free will. We extend that hypothesis into a stronger version that becomes its own deterministic doctrine, where human determinism is self-referential and the hypothesis becomes human self-actualization. The discussion in this paper has implications from metaphysics to ethics, through philosophy of religion and of course the free will/determinism debate.

7676 words

Determinism has taken hold as a majority view in philosophy (Klemm, 2010) albeit in a compatibilist form (Nichols, 2007). The free will/determinism conundrum is often considered an overdone debate (Mascolo and Kallio, 2019), and most solutions now appear to try to add complexity and nuance (Mele, 2020) and to reconcile the two (List, 2020: 4). There is however another route possible that has not been explored in depth which is a radical departure from this approach.

What is meant by transcendental metamorphosis? This term, rarely mentioned in the literature (Calvo-Sotelo, 2013), here means a radical transformation that enables to transcend a state, determinism. In particular the transcendental metamorphosis hypothesis is that such an action is possible that consequently determinism would be eschewed for free will and in particular radical or libertarian free will. The metamorphosis is both what transcends, the transforming action and what is transcending, the system's change from determinism to free will.

Of course, what good would be that hypothesis for the free will debate if it wasn't plausible. Especially when determinism is linked to fundamental physics (Earman, 2008) or cultural foundations (Dutton, 2018). It is even more pointed when taken into consideration that that action, emerging from a deterministic framework, would presumably have been determined. To overcome this obstacle the action needs to not be just outlandish but actively go against determinism. It needs to do so in such a way that durably breaks determinism. Now there is the short unhelpful answer that transcends determinism individually, suicide (Lorentzon, 2005). You

can no longer have your life determined if you are dead however you cannot have free will either. You can argue that determinism led to your suicide, but the action inarguably stops individual determinism. This action is not outlandish enough though to lead to the enabling of free will afterwards. Individually, there is also the answer from the famous antagonist Nikolai Stavrogin (Dostoevsky, 1978), where radical immorality leads to free will (see also Feldman et. al, 2016), overcoming economic and cultural determinism to become miserable. He chooses willingly to go actively against what he learnt, his position, his social status, for no structural reason but a form of nihilism he decides to embrace despite not even being structurally pushed towards it either, this seems to indicate free will beyond simple compatibilism. Of course, it is fiction, nevertheless it was probably inspired from real people (Marcireau *in* Dostoevsky, 1978) and, more importantly here, it means it is at least imaginable.

Those previous answers hint at a transcendence by the bottom, being free to downgrade yourself. However, this is not really the transcendental metamorphosis hypothesis since the hypothesis does not transcend the determinism of an individual but determinism. This thereafter depends on what determinism is. Nonetheless, it should be noted that the aim here is not to prove the hypothesis, only to prove its plausibility and thereafter importance. For it to be plausible, it needs to be a radical jump from one to the other, so it cannot just be considered as reconcilable in a compatibilist framework, it needs to be able to change some elements, for example of causality, that would make possible to leave determinism, and it cannot be just an individual change, unless it has an impact on the whole system.

We will proceed through 3 different parts and their potential for fulfilling the hypothesis, external causes, internal causes, and indirect influences or spontaneous fulfillments. The 2nd part is broken into cultural, environmental, social and genetic determinism. Once general objections are addressed in a 4th part, and everything is concluded, we will present in a 5th part an alternative, stronger, version of the hypothesis.

I External Causes

To go back to fiction, there is an extremely well-known incarnation of the transcendental metamorphosis with the end of Matrix[1]. It breaks a determined circle, so it satisfies criteria 1, it saves Zion which fulfills criteria 3, and it does so by deciding to collaborate with the machines which does change the causal chain. It is interesting that the hypothesis has been incarnated in fiction but also the way it has been incarnated, not only is it through a seemingly uncaused action, but, most importantly, it is really because of the narrative arc and both the viewers' and authors' eyes, it is caused but not from within the deterministic framework. This can have interesting implications if, for instance, speculations that we live in a simulation (Bostrom, 2003) are true. It is of course not a real example so that the hypothesis cannot solely stand on that, however it underlines just how, even in a strictly causal hard deterministic universe, the fact that we could be within another larger framework could help trigger what is, ultimately, free will. This might be challenged on the ground that it is the author and the narrative arc which led to the action,

[1] the end of Matrix the trilogy is meant here although the first film's end has an interesting account of individual transcendental metamorphosis.

another deterministic chain, but it should be reminded that both the author and the narrative arc overlap and are influenced by Neo just as they create it, so it is my contention that it is Neo's free choice in the story that is only intermediated by the author and the outside context, that in a way he led them to afford him the choice. This is in line with tangential research that encounters are co-created (Mishler, 1986), that if we are in a hard deterministic world they do not have a choice but to afford him free will and so that in a sense Neo and the Matrix universe afforded itself free will from its own internal rules through the mediation of the author and the external deterministic rules. This would mean that external causes, external from either the universe or at least our human world, while still being deterministic themselves, could break the continuity in such a way as to allow us a free choice. Now there are two problems here, one related to the fictional aspect, it is an external cause, which, especially if we hypothesize a hard deterministic universe, is probably not plausible even if possible, while the other is that this transcendental metamorphosis could be temporary, that this free choice only leads to later cycles of slightly different determined events.

II Internal causes

The need to find internal causes that could lead to the hypothesis' realization needs to start with a limitation in scope. Hard determinism as concerning the whole physical world can be internally challenged, for example with a sudden breakdown of the rules of physics, however, even if by adding the external possibility it attains the threshold of plausible, we will leave out internal

purely physical causes[2] as they are by themselves implausible. This does mean that, although the hypothesis could theoretically work for hard physical determinism, we will here be interested in other, smaller in scale, forms of hard determinism.

The three criterions outlined earlier, as to what would constitute a sufficient metamorphosis, will be implicit here, but every structural change of the determinism frameworks that follow do lead to a breakdown of the deterministic structure and so beyond simple free will in the compatibilist sense since it is accompanied with a lack of determinism, and, because they are changes in the deterministic structure, they also necessarily fulfill the second and third criterions.

Cultural determinism

If we look at hard determinism more narrowly, we could first focus on culture (Spiro, 2001) (Graves, 1972). If we assume that it is what is leading to determinism through its structure, then an action that would lead to free will would be such that it would either end the deterministic components of the structure or change it towards a structure that enables free will. Changing the structure is the most difficult but it has precedence, with the lawlessness of the Far West being a prime example despite opposite cultural pressures of hard work ethics and self-sufficiency. However, it does not show a change in the existing structure but rather an extension of the empire of man beyond its civilization. Other examples of being free from cultural constraints occur in wars and so not only in places where the structure is not but most importantly, like the

[2] This should be understood as either causes solely from the physical world, without output from humans, or from humans with the sole aim to change physical determinism. Other internal solutions to physical determinism are discussed below.

Far West, and like Nikolai Stavrogin, through a rebellion against following a moral course of actions, against fellow humans' dignity and physical and mental integrity. Before seeing ways to regress the structure, we can already see that changes in its permeability, which is what would allow free will, would also have the significant cost of losing a part or most of our humanity[3]. This is not a fully Hobbesian argument nonetheless, since regressing the structure does not equal to simple lawlessness, however it is also costly. To eradicate civilization in practice means such extreme action as nuclear war or engineered worldwide disasters. The structure also cannot simply be partially destroyed since, let's say there was a loss of internet, fast communications and the associated structure, the lower part of the structure, existing cultural hierarchies, norms, values, would lead to another larger form of determinism, like a societal reorganization around the value of mail, and not the end of determinism. So, it is necessary for something very costly to happen to go from cultural determinism to free will, as engineering such a disaster is implausible we will concentrate here on nuclear war[4], which is not only plausible but was close to realization several times. Nuclear war would destroy not only information technology through the EMP effect (Baum, 1978) but, along with the main population centers, any analogic storage of information. It will also destroy most cultural places and symbols while reordering life in such a way that would prevent a simple return to similar cultural norms, especially if a naturalistic origin of culture is contended. It might be argued that it will only lead to another form of determinism, over time. However, if we take the idea of cultural determinism seriously, there

[3] See also Hobbes, 1894

[4] The immorality of nuclear war is without question, it still remains an important part of the switch to free will discussion done here.

can be no determinism without culture. Another interesting point here is that, then, if indeed another culture emerges, the hypothesis would still have been true, people would have freely chosen to return to determinism. This also responds to issues of a temporary realization of the hypothesis, it is just the nature of free will to be able to renounce itself, so it is not so much a problem as an integral part of the possibilities afforded by the transcendental metamorphosis. This does again seem to not only put free will as possible but costly and harming humanity, but also as something that we might renounce for other collective notions. Another objection, from the response to the first, would be that why would we even do such a thing if it does not even mean durable free will. Well we might just not escape it, as said before there have been several close calls already, and there is still a free choice, because it might extinguish itself does not make free will less important, it does not mean that nuclear war should be triggered but rather that cultural determinism is escapable.

Environmental determinism

Geographers have long theorized that there are environmental elements and forms of determinism (Hrebiniak and Joyce, 1985) (Frenkel, 1994), so we will see how to overcome that type now. Environmental determinism most extremely overcome, with for example faster than light travel, also somewhat overcomes physical determinism. There are many ways to realize the hypothesis if talking about environmental constraints, almost always through technological breakthroughs. We can invert the external causes example by creating a simulation where everyone would have free will and freedom from environmental constraints, we can remodel the

environment too, with an extreme example being nanobots that can change anything into any other thing, there is also the possibility of space travel where free will can be a choice of planet to inhabit, choosing your own environmental determinism, and finally the already talked about breakout from physical constraints. As we saw earlier, the fact that the external world and the simulation are hard deterministic are already no obstacles to free will emerging, so it is logical that a simulation which is not based on determinism but free will (Siebers *et al.*, 2010), as we would supposedly want, especially since we might already want that for machines (Irtem, 1978), would also lead to a breakout from determinism and towards free will. This break towards free will that a simulation enables is not limited to any type of determinism, as can be easily imagined. However, it would also mean an atomization of individuals in such a way that not only would cultural determinism not hold true but also neither would any semblance of humanity. It continues a pattern that to escape determinism is often to agree to cease participation in structures, like morality, civilization or even life, that are central to our current existence, to escape determinism is costly for our humanity. Remodeling the environment in small ways, like building digues and artificial islands, are not enough to transcend determinism only local determinism. It does not mean that actually remodeling the whole environment is necessary to escape determinism, the potential to would already effectively nullify environmental determinism in effect, giving the ability to do otherwise (Gebharter *et al.*, 2020). This ability is what would give us free will from environmental determinism since the environment would no longer be determined. The ability to choose a planet, on the other hand, echoes the solution to cultural determinism, that choosing your own determinism means that you have access to free will. This is nonetheless different because here you would not have access to a space without

environment, like you would without culture after an apocalypse. It still affords free will however because it is not a single discrete choice that cannot be taken back, but, rather, the space without environment is here the space between choices, you can even go as far as saying that it is represented by the intermediation of space travel which exists between choices. The idea of space as the space without environment must of course be taken metaphorically since a spaceship is still an environment. As stated in the start of the paragraph, environmental determinism solutions can rejoin physical determinism solutions. If such overcoming of physical rules is possible, it would free us from environmental determinism by allowing us to overcome our environmental bubble, not only in the space travel sense, which would need a generational effort, but in a much more instantaneous manner. You would not even have to worry about the space between choices and there would also be an acute understanding of the environment as overtaken, which transforms the prior determinism tapestry into a playground, free will being the subversion of its limiting effects towards a reason for choice, an extreme version of the long-practiced Exploration[5] on a more collective level.

New Environmental Determinism

The solutions proposed above to environmental determinism are particularly paradoxical because they can lead to another form of determinism or self-suppression of the free will

[5] Note that we already have space exploration, so it is not so much extreme because of a difference of kind, it is extreme because of a difference of degree. By transforming space into a playground, it is not even really exploration at all anymore but for us and in comparison to our present explorations.

afforded by them before it can be used. The technological solutions call for a significant amount of planning which is not absurd to think would be done, at that point, by an artificial intelligence. This would create a new structure that can thereafter determine humanity, despite the new seeming freedom from environmental constraints. This could be addressed by unplugging it as soon as the task it was for is accomplished, and a resistant form of A. I., that attained the singularity, is still highly speculative. Still, it seems doubtful that such a simple solution can be relied upon, instead it should be recognized as another structure to be overcome and either quarantine it so that it only affects small aspects of life or have competing A. I.s that would keep each others in check. It remains very important here to stay in control to pretend to transcendental metamorphosis, despite not being the most realized being, otherwise it could the artificial who, in the end, is the one freed from determinism. There are two other related problems; one is irremediable collapse, beyond even nuclear war, that is completely unsurvivable to humans, is more likely as technology gets better, especially if you take into account things like nanobots. Whether it can be one of the great filters cannot be known however, and, while it would rob us of free will while freeing us from the structure, just like suicide, it cannot be reasonably addressed or worried over as it is unknowable. The other problem can be spurred by a non-human intelligence, that would manage everything in the case of a simulation. It would not be a non-deterministic system (Campolo and Crawford, 2020), thereafter possibly reinjecting determinism in the simulation. As has been said before, the simulation's free will is accompanied with a loss of humanity structure, so it would not be such a bad thing. For the larger issue at hand it can be strongly resolved in two ways, everything being made analogical, or in a way that precludes AI, and constructing an AI that understands the importance of free will in the

simulation and ensures that it is not jeopardized. The most logical answer would probably be, however, that it is a problem with too low a risk to plan against and that this possibility should just be accepted, given the additional cost and time of counter measures. There is one final risk to the technological breakthrough of deterministic structures, physical limitations. Everything mentioned here as environmental determinism solutions is at best speculative, and it might be that it is just physically impossible or practically impossible, no matter how long into the future. This is where, even with only partial physical determinism, physicalism difficulties compound with environmental determinism. If we keep being unlucky and neither significantly better technologies changing the environment, nor faster space travel, nor livable planets, nor a possible computation of the human, are possible, there are still ways out of environmental determinism. For one thing, it can be argued that global warming is us departing from environmental determinism, similarly to large scale construction of cities, urbanization and industrialization. Further, we always have the possibility of exiting from below, by simply poisoning the entire planet[6] and then being solely responsible for what livable places are like. Beyond bleakness, several programs like the International Space Station or offshore platforms show that we can already go beyond the environment in some ways and there is no reason to think that it cannot be improved upon. Finally, new technologies like 3D house construction (Hager *et al.*, 2016) show that we have abilities for large scale environmental remodeling that is not just utter and complete destruction. It stands to reason that if we have already a significant impact on earth now, to the point of entering the Anthropocene (Lewis and Maslin, 2015), we

[6] This is, as with nuclear war, not an endorsement of the method, further, like for nuclear war, we can argue that it is already on the brink, or even, in the case of large-scale forms of pollution, already happening.

will, in that trajectory, inevitably end up overcoming any form of environmental determinism, notwithstanding physical limitations.

Social determinism

Social/economic determinism is effectively identical to cultural determinism for our purpose. The only ways to change the structure is either to go to a new place without this structure, for example by colonizing the United States[7], or to be in a place with chaos and instability, like during a civil war[8], while to effectively eradicate the structure nuclear war is the only realistic option. However, even more so than cultural determinism, the fact that the structure can be overcome by simply going to another place means that, by using space colonization, that incidentally overcomes environmental determinism, we can also overcome social determinism as well. Again, as for cultural determinism, the objection that it amounts to only choosing which form of determinism falls flat since there is a free choice and a voluntary auto extinction of free will. Social determinism would seemingly objection to a solution through a simulation, if we suppose that participants keep their prior status into the simulation. However, it would then take away the appeal to the lower strata, they would not integrate the simulation, which would in turn mean free will for both the simulation group and the outsider group, provided that there is not a remaining hierarchy in the non-simulation world and that it effectively selects all people of the

[7] It should be noted that we are talking about the Anglo-Saxon structure as not preexisting. The Native structures were effectively destroyed but only to be replaced by the emerging American structure, which explains why, while the early immigrants did have social mobility, it did not happen to Native Americans after their expulsion from their lands.
[8] It can be a way to attain social status unavailable otherwise.

same social status to participate in the simulation. This dichotomy shows an interesting effect, since humanity is only fully retained by the outgroup, by sacrificing the outsiders' access to the simulation the insiders actually sacrificed their own humanity to have a separated free will, negating the worthiness of the exercise, if social status is maintained in a simulation it would not preclude free will but would be needlessly costly and segregating.

Genetic Determinism

Genetic determinism is, as opposed to social determinism, most similar to environmental determinism with both possibilities of technological solutions and risks associated with it, like with gene therapy. However, unlike environmental determinism, it has additional problems and solutions. Beyond solutions that would not work for genetic determinism, like space travel[9], a bigger issue here is that technological solutions could lead to strong societal hierarchies and actual bring about stronger determinism rather than free will, collectively. This problem has an easy solution which is equal access, however its plausibility, especially in our current system, is mixed. The more difficult solution, post-human evolution, would work in both considering only a rich post-human group or a poor human group, since on the one hand it would be free from genetic determinism, while in the other it would be the only human group left, being free from hierarchies linked to genetic determinism because not participating in the hierarchies or being

[9] This, as can be seen with the end of paragraph talk about nuclear fallout and genetic mutations, depends on the shielding from radiations. The last part of the paragraph can also work for space travel that has minimal radiation shielding, especially considering that the radiations would not be spatially uniform and that there would be probably be more than one spacecraft.

rejected by them would be part of what it is to be human, arriving at another route to freedom from genetic determinism. This approach can be criticized, even strongly, despite working to bringing about free will, since it leads to a form of social Darwinism and is close to some ideologies of eugenics. Of course, we can put the problem on its head and see that humanity is only retained by the group that cannot participate, but there is the evolutionary argument that the dominant form of homo sapiens is the one that should carry the title of human. Now this argument, on a new species precisely overcoming evolution and genetics, is already doubtful, but, further, we have already seen that, with cultural determinism, to be free is also to be free to join a new determinism, and it is my contention here that any post-human group would want to rejoin humanity. Why would they renounce their dominant status in their own framing to another framing where they do not have that status? Well, their dominant status is based on their existence within humanity anyways, so that a separation would technically bring an end to that, but, most importantly, the alternative free will, brought by the non-dominant group, would be more attractive than their own. This is because one has its whole identity around overcoming determinism, as well as all its efforts, while the other overcomes determinism without even having to resort to technology and can have further aims, enabling free will to be used for something collectively rather than being an individual endpoint. The objection that to rejoin those two groups would take away the freedom, since there is no more post human group, does not take into account the temporal trajectory and that simply having a single human group again does not just turn back the clock and return to the old hierarchy. Beyond problems, there are also solutions to genetic determinism that are different from environmental determinism. In particular the solution to cultural determinism, nuclear annihilation, would also work by bringing

about mutations and mutative ability. This could, theoretically, unshackle us from genetic determinism, and beyond simple probabilistic indeterminism, afforded by radiation, towards a possibility to choose your own probabilistic indeterminism, hence free will, because of the difference of radiation across the landscape. Of course, there are heavy costs to bear, and one can argue that, currently, genetic determinism would only mean escaping places with too much radiation given their deleterious effects. Nevertheless, a combination of an impossibility to detect radiation[10] and evolution, that would lower deleterious effects, could actually allow for radiation sources to be a form of free will, despite physiological requirements, serving as a way to evolve faster and changing radically genetic evolution in such a way that reenables free will[11].

III Other Non-provoked or Self-provoked Fulfillments of the hypothesis

The internal causes that were discussed focused on particular, extreme, actions or changes that allow for discontinuing determinism. There is another possibility that, while less plausible, adds to the overall picture and overall plausibility. It is possible that the deterministic chain simply naturally, organically, leads to an action that causes the resurgence of free will. It could even be argued, then, that this paper, a natural continuance of determinism, is such an example since it could, theoretically, lead to actions that re-enable free will through simple information. This is far-fetched to be sure, and is not argued for here, but the fact that we have been able to separate

[10] This is for most survivors after a nuclear war.

[11] This is not a romanticization that radiations will make us all mutants but that extreme pressures and stress on the genetic evolution will break the mechanisms that served to accomplish genetic determinism, and that this transcendence precisely could be selected positively by evolution, strengthening the separation from genetic determinism.

the causation chain and the emergence of free will in a such a way that one can lead to another, through the pivot of the action that fulfills the transcendental metamorphosis hypothesis, does also allow for organic appearance of this action without actual needs of technological leaps or costly collective actions. The fact that it cannot be triggered, as it is organic, lowers its practical use, however it strengthens the idea of determinism as potentially temporary, no matter how all-encompassing, which does contribute to the free will debate. Objections like the inability of determinism to determine its own status and thereafter to end determinism are, much like similar anti-theistic arguments (Walton, 1975) put in doubt omnipotence, only going to end the coherence of the core concept of determinism, either there is hard determinism and so it can lead to conditions where there is no determinism, or there is soft determinism and it can still have structural tendencies towards its own end or there is no determinism at all, at minimum there is a tendency of any system to die and so to end with itself determinism.

Every option that we have explored so far have been part of a causation chain which is logical, given the context of hard determinism. The overview would not be complete however without discussing non causal or para causal reasons for the hypothesis to come true. The non-causal solution is extremely simple, although incredibly difficult to believe, the system simply stops being deterministic, which one could even equate, in a way, with the end of its existence and the beginning of another, if we want to keep the causal chain intact. The slightly more probable, but also more complicated, para-causal possibilities are related to changes in the system that are not on the essence of the structure, the environment, physical world and culture, but on its form as deterministic; not, unlike the self-fulfilling we have earlier showed, of the whole structure ceasing to be deterministic, but of the sudden add of an element that allows for free will. A clear example

is mind suddenly acting on matter in a strong tangible manner, which could clearly undo physical determinism quite fast. Another example is a breakdown of causation logic, for example with the creation of an upstream effect in addition to the downstream effect. By reverberation, those enabled changes in the past would end up breaking any useful causation or static aspect of the deterministic structure, to the point where it would not be deterministic anymore. It is clear that those possibilities are remote, objections however that they would only lead to a form of non-determinism that still has the deterministic structure, and so that choices are still more structured than would allow libertarian free will, should be discarded because both proposed changes would end up echoing or being caught in a feedback loop. Given this echo, there would not be a non-infinite number of causes in the deterministic structure within minutes after the change. This infinity would nullify any deterministic structure since any causality or determination by one thing to another would be reduced to a 0% probability. Further actions, after the initial change, would then be able to act on the chain of their own causality themselves so that, even if we admitted a continued, albeit fragmented, structure, it would not so much determine as be determined by the actions, ergo those actions are expressions of free will.

IV General Objections

Objections that no central tenets of hard determinism have been addressed cannot stand, as, by addressing instead what is the deterministic structure and how it can stop being deterministic, it effectively bypasses individual assumptions of determinism, towards a more universal rendering of the hypothesis, regardless of the particular doctrine. Similarly, objections that only physicalism

can stand as a hard deterministic structure, and that is has not been addressed in depth, are refuted by the arguments for the physicalist hypothesis, external causes, a breakdown in physics, an overcoming of physics through technology, an overcoming of physics through a simulation, a spontaneous revival of free will and a reorientation away from physicalism. The cultural and environmental determinisms, while more known in other disciplines, are still relevant, having even been part of hard deterministic arguments (Strawson, 1994). There is a strong argument that the hypothesis, as it was argued, can only consider a naturalistic and materialistic version of the world, while it is definitely not the case for the below strong hypothesis, most arguments that have been made do not envision either a dualist perspective or a possible higher being. That is until you change the perspective, as the external cause argument can be applied to a god and to a dualist account (the god and the matter being the external). It is also not said that physical determinism could not be a manifestation of said higher being, allowing one more way for the hypothesis to be realized. As for dualism and internal causes, it does not make substantial differences in a hard deterministic world compared to monism, so it allows the same end point. Another objection is that the determinisms shown here can be cumulative, meaning that the solutions for each are not actionable. However, not only can solutions be cumulated, some solutions are valid for multiple forms of determinism. Finally, not all determinisms are equal, physical determinism would by continuation also determine the environment for example, so not only would they not be applicable to the same situation but physicalism's superseding also means that to resolve it would resolve other forms of determinisms if we chose to consider them cumulative[12]. A final objection, which rings true, is around other hard deterministic types of

[12] See also, for an opposite view, Franck, 1984

world, with something akin to fate. Indeed, the plausibility of the hypothesis, which is heavily supported by the internal causes section, is in doubt for that type since internal causes discussed are not applicable there. However, returning to fiction, especially older stories, when that type of determinism was more frequently ascribed to, gives us more than an out; it shows us internal solutions to that type of determinism. Two famous examples are Dante's voyage, transcending his humanity, position and failings to get to paradise, and Prometheus, transcending god's determinism to ensure humanity's survival. Of course, they would have to be taken collectively not to fall back onto individual transcendence, nonetheless we have two paths, redemption and rebellion. Redemption is using the system's structured way out of itself[13], following it to become free after enough hardship, a way towards free will that paradoxically structures fate. It is often when trying to avoid it, as in many ancient myths, that destiny happens. Rebellion still uses the system but this time against itself[14], it has heavy consequences but the sacrifice of a few can lead to the freedom of many. Fate systems have there another paradox, they often end up punishing the culprit, for all eternity, but, at the same time, recognize its sacrifice and thereafter concede to the advances rendered possible by the rebel.

Those are all arguments that show the plausibility of the transcendental metamorphosis hypothesis. This gives an escape to determinism; however, we have seen that this is not without

[13] In Dante's case, from purgatory to heaven.
[14] In Prometheus' case, by giving fire that was possessed by gods to humanity.

cost, that can be as tremendous as nuclear war, especially costing us parts of our humanity for many of these solutions. This is where you can escape the escape and choose, with the newly afforded free will, to return to determinism. The various types of determinisms, genetic, physical, social, cultural and environmental, overcome are important, as well as the various ways with which we arrive there, from human, internal, causes which concentrate on a particular type, or types, of determinism through space travel, nuclear war, nanobots, new genetic technology, simulations and technology breaking physical constraints, to other causes/non-causes that work no matter the type of determinism. The latter range from external interactions with us, to self-fulfillment of the hypothesis, to changes that impact causation in such a way that it enables free will.

Those various solutions for the jump to free will offer some key points. Two deterministic systems can lead, through interaction, to free will. Cultural and social determinisms are the most difficult to eliminate, requiring either to move away from earth or to end civilization, with the exception of the simulation solution. That solution, like gene enhancement technology for genetic determinism, works even if it is used in a discriminate fashion, however it brings extra costs for no reason, since both the in and out-group get free will, questioning a similar distribution to current technologies versus universal access. Other issues are highlighted, like the new environmental determinism that could appear from solutions to environmental determinism, possibly leading to our deaths, the emergence of Artificial Intelligence as dominant and getting free will instead of us or an inextricable physical limitation that would highlight both the closeness and impossibility of the hypothesis. We also see that determinism can end itself, even without intervention from outside or inside sources, and that, with the right change in conditions,

like sudden action of mind on matter, the determining structure becomes the determined one. Finally, objections are addressed, which allows us to see that this hypothesis works, and is plausible, even for physicalism, multiple types of determinisms and fate systems, the latter which can be specially overcome through redemption or rebellion.

Of course, what can do the most can do the least, so this hypothesis is also an argument for a move from compatibilism to libertarian free will. However, using this theory in that way leaves a lot of parts unreconciled, as opposed to within a hard deterministic world, so it is not a strong contention here. Nevertheless, the plausible move from hard determinism to free will, with so many different solutions, working in different ways, for a variety of settings, is a game changer for the free will debate.

V A Strong Transcendental Metamorphosis Hypothesis

There is also a hard version of the hypothesis, which constitutes its own deterministic doctrine rather than simply allowing a bridge from one theory to another. It holds, in an extreme form of cultural theories like performativity (Drucker, 2013) and gaze (Urry, 1992), that there is such a determinism that it is human self-referential, that it is determined by humanity as much as it determines it. This means that, in practice, a form of physical determinism, for instance, that incorporates this doctrine, would cease to exist alongside humanity, that the world only exists because of our capacity to be there to see it (Proietti *et al.*, 2019). Importantly, this hypothesis means that there is an action that can be undertaken by humanity that would undo determinism, even physical determinism, that there is a way to restart out of determinism but without

necessarily having to use the methods outlined earlier in the softer version. It is a form of collective will to power overcoming and inverting the dual relationship between the material/determining factors and humanity, taking back our ability of true choice. This is of course much more controversial than the softer version would be, it even inverts any possible causation chain since humanity would be principally responsible for its own determinism and, further, all existence. And, because our actions do allow for the continued determinism, it stands to reason that there is such a course of action that could break that continuity, allowing emergence of true free will. Like argued at the end of part 3 for actions in a causal chain that also acts in the past, we would go from determined, here by ourselves intermediated by, for instance, the physical world, to determining, especially ourselves. It could still be costly but, at the opposite of the earlier version, it would not be a loss of humanity but a truer realization of it. If this doctrine is close to the truth it not only has an impact on our future collective actions but also on various sets of theological and philosophical beliefs; to accomplish transcendental metamorphosis then would transcend its anchoring on free will/determinism as it would be important by itself, not just because of potential but because it would mean that the fixed nature of reality is a self-created illusion.

This harder version has several potential objections like life before humans, the age of the universe and non-human observations. The short version is that, as all our experiences are necessarily mediated by our senses and so are our observations, it remains possible, we simply create our past by looking at it. This does not seem very convincing on its face, with the why and the how being left in suspense. However, take the earlier matrix example, it is in the end a way for Neo to give himself free will, that in a sense the creation only begins with his existence,

despite the preexistence of the context and the authors. It can be a very similar process in this doctrine, the referential is considered different in such a way that humans do create the universe by their observations, not necessarily literally but through discontinuity from the preexisting universe through their observations. More fundamentally, we do not and cannot have proof of existence that is not mediated by our observations. This does not mean of course that it is the evidence of absence of existence unmediated by our observations, but it does mean that our understanding of the universe and the local can only be through observations. We have already shown that, since we are, any future is necessarily a co-creation that is in this particular way because of the emergence of humanity. From the dual ideas that we influence deterministic structures and that we can only perceive them through ourselves, the idea that we ultimately are responsible for them and so that we can be freed from them is not such a leap of faith, no bigger than other deterministic/free will doctrines.

What we have, through the transcendental metamorphosis hypothesis, are two credible accounts of a change from hard determinism to free will. The first account requires a huge change and often a sacrifice, a loss of humanity, however it is compatible with most deterministic doctrines and so has important implications there. The other, harder, version is its own doctrine however, tending towards a smaller cost but, most importantly, towards the hypothesis as a form of self-realization of humanity, having ramifications beyond the free will debate and towards theological and philosophy of religion debates as well as metaphysics.

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